

1. A recombinant virus capable of infecting a non-permissive cell, comprising:
a first nucleic acid sequence encoding a detectable marker operably linked to a
first promoter, wherein the first promoter is active in a host cell and inactive in a non-
permissive cell; and

5 a second nucleic acid sequence which includes an exogenous nucleic acid
sequence operably linked to a second promoter, wherein the second promoter is active in the
non-permissive cell.

10 2. The recombinant virus of claim 1, wherein the virus is a baculovirus.

15 3. The recombinant virus of claim 2, wherein the first promoter is inactive and
the second promoter is active in a mammalian cell.

20 4. The recombinant virus of claim 2, wherein the first promoter is inactive and
the second promoter is active in a human cell.

25 5. The recombinant virus of claim 2, wherein the first promoter is inactive and
the second promoter is active in a primary human cell.

6. The recombinant virus of claim 2, wherein the first promoter is inactive and
the second promoter is active in a non-permissive insect cell.

7. The recombinant virus of claim 6, wherein the first promoter is inactive and
the second promoter is active in a non-permissive *Drosophila* cell.

25 8. The virus of claim 1, wherein the first promoter is a viral polyhedrin
promoter.

30 9. The recombinant virus of claim 1, wherein the first promoter is a P10
promoter.

10. The recombinant virus of claim 3, wherein the second promoter is a CMV promoter, an RSV promoter, or an SV40 promoter.

11. The recombinant virus of claim 6, wherein the second promoter is a heat shock protein promoter, an *Orgyia pseudotsugata* immediate-early promoter, a metallothionein (MT) promoter, or an actin 5C promoter.

12. The recombinant virus of claim 1, wherein the detectable marker is a fluorescent protein.

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13. The recombinant virus of claim 12, wherein the fluorescent protein is GFP, EGFP, EYFP, ECFP, EBFP, or DsRed.

14. A method for selecting a viral plaque for infection of non-permissive cells, comprising:

15 providing a recombinant virus capable of infecting a non-permissive cell, which virus includes a first nucleic acid sequence encoding a detectable marker operably linked to a first promoter, wherein the first promoter is active in a host cell culture and is inactive in the non-permissive cell; and a second nucleic acid sequence comprising an exogenous nucleic acid sequence operably linked to a second promoter, wherein the second promoter is active in the non-permissive cell;

16 infecting a host cell culture with the recombinant baculovirus; and

20 identifying a viral plaque by detecting expression of the detectable marker, thereby selecting a viral plaque for infection of non-permissive cells.

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15. The method of claim 14, wherein the recombinant virus provided is a baculovirus.

30 16. The method of claim 15, wherein a recombinant virus is provided in which the first promoter is inactive and the second promoter is active in a mammalian cell.

17. The method of claim 16, wherein a recombinant virus is provided in which the first promoter is inactive and the second promoter is active in a human cell.

5 18. The method of claim 15, wherein a recombinant virus is provided in which the first promoter is inactive and the second promoter is active in non-permissive insect cell.

10 19. The method of claim 18, wherein a recombinant virus is provided in which the first promoter is inactive and the second promoter is active in a non-permissive *Drosophila* cell.

15 20. The method of claim 15, wherein a recombinant virus is provided in which the first promoter is a viral polyhedrin promoter or a P10 promoter.

20 21. The method of claim 15, wherein a recombinant virus is provided in which the second promoter is a CMV promoter, a RSV promoter, a SV40 promoter, a heat shock protein promoter, an OPIE2 promoter, a MT promoter, or an actin 5C promoter.

25 22. A method for producing a protein in a non-permissive cell, comprising:
providing a recombinant virus capable of infecting a non-permissive cell,
which virus includes: a first nucleic acid sequence encoding a detectable marker operably linked to a first promoter, wherein the first promoter is active in a host cell culture and is inactive in a non-permissive cell; and a second nucleic acid sequence comprising an exogenous nucleic acid sequence encoding a product operably linked to a second promoter, wherein the second promoter is active in the non-permissive cell;
infecting a host cell culture with the recombinant virus;
selecting a viral plaque by identifying expression of the detectable marker;
amplifying the virus from the selected viral plaque; and
infecting a non-permissive cell with the amplified virus, wherein the non-permissive cell thereby produces the protein encoded by the exogenous nucleic acid sequence and
30 wherein the non-permissive cell does not express the detectable marker.

23. The method of claim 22, further comprising the step of re-infecting the non-permissive cell with a recombinant virus.

24. The method of claim 22, wherein the recombinant virus provided is a
5 baculovirus.

25. The method of claim 24, wherein the non-permissive cell infected is a mammalian cell.

10 26. The method of claim 24, wherein the non-permissive cell infected is an insect cell.

27. The method of claim 24, wherein the non-permissive cell is infected *in vitro*.

15 28. The method of claim 24, wherein the non-permissive cell is infected *in vivo*.

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